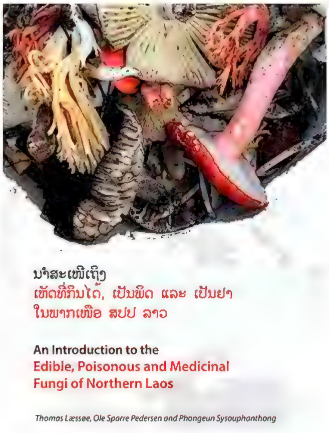
MYCOTAXON
ISSN (print) 0093-4666 (online) 2154-8889 Mycotaxon, Ltd. © 2019
July–September 2019—Volume 134, pp. 583–590
https://doi.org/10.5248/134.583

Book reviews and notices[*]

Else C. Vellinga

861 Keeler Avenue, Berkeley CA 94708 USA

Abstract—Books reviewed include: An introduction to the edible, poisonous and medicinal fungi of northern Laos by Læssøe, Sparre Pedersen, and Sysouphanthong (2019), Mushrooms of the Gulf Coast States (A field guide to Texas, Louisiana, Mississippi, Alabama, and Florida) by Bessette, Bessette, and Lewis (2019), and Fungi of temperate Europe (volumes 1 & 2) by Læssøe & Petersen (2019).


ນຳສະເໜີເຖິງ
ເຫັດທີ່ກິນໄດ້, ເປັນພິດ ແລະ ເປັນຢາ
ໃນພາກເໜືອ ສປປ ລາວ
An Introduction to the
Edible, Poisonous and Medicinal
Fungi of Northern Laos
Thomas Læssøe, Ole Sparre Pedersen and Phongeun Sysouphanthong

An introduction to the edible, poisonous and medicinal fungi of northern Laos. By T. Læssøe, O. Sparre Pedersen, Ph. Sysouphanthong, 2019. Svampetryk, Kornblomsvej 6, 8381 Tilst, Denmark; svampetryk@svampe.dk 192p. 330 photos. This is an open-access publication, distributed under the terms of the Creative Commons Attribution Licence, which permits unrestricted use, distribution, and reproduction in any medium, provided it is for non-commercial purpose and the original source and the three authors are credited. It does not have an ISBN number.

This book is one result from a Darwin Initiative grant to the James Hutton Institute (UK) for the purpose of "building mycological capacity for sustainable resource management in Lao PDR." Training of Laotian students in a laboratory was also part of this project.

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[*] Book reviews or books for consideration for coverage in this column should be sent to the Editor-in-Chief <editor@mycotaxon.com> 6720 NW Skyline, Portland OR 97229 USA.

This 'introduction' provides an overview of macrofungi from Xieng Khouang province in northern Laos. The focus is on those fungi that are considered either beneficial (edible or medicinal) or poisonous for people, and all text is in both English and Laotian.

The vegetation and mycoflora of Xieng Khouang province resemble those of northern Thailand, Yunnan province in China, and Japan—all three regions where mycology has seen a huge outpouring of publications on macrofungi in the last 15 years.

The book starts with a brief introduction to mushrooms, the different nutritional modes of fungi (including a paragraph on termite fungi), a page on classification and morphology, and another page addressing the various adverse reactions to and toxins of the poisonous fungi.

The fungi are organized systematically within the edible, potentially edible, poisonous, potentially poisonous, and medicinal categories, with *Microporus xanthopus* as the only representative of a fungus that is used for decoration.

Each species gets its own page, with one to several excellent photos, a description, and notes on use in Laos. All photos, with the exception of two species, were taken in Laos—this type of information is very welcome.

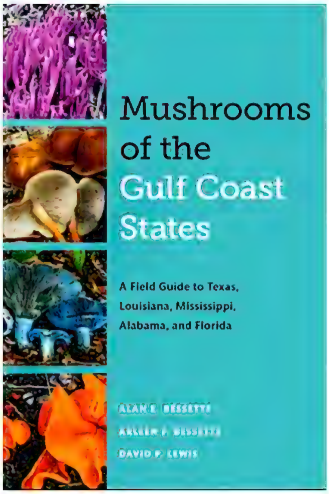
Many species are identified as 'close to X' or 'resembling Y,' as Southeast Asia is still extraordinarily rich in undescribed fungal species, and the identification of the Laotian species was based solely on morphology.

An extensive reference list and an index complete the book.

This is the first book I know of that deals with Laotian fungi. In any case, information on the mycoflora of Laos is exceedingly rare. As in neighbouring countries, wild mushrooms form a huge part of the local diet and are a source of income as well; some species (for instance several species of red russulas) are dried and exported.

I like the cautious approach to the naming, and the efforts to link the local Laotian names to a scientific name. As I have been mushrooming in northern Thailand and Yunnan province, this book evokes happy memories of the forests and the visits to the markets and roadside mushroom sellers.

Mushrooms of the Gulf Coast States. A field guide to Texas, Louisiana, Mississippi, Alabama, and Florida. By A.E. Bessette, A.R. Bessette, and D.P. Lewis, 2019. University of Texas Press, utpress.utexas.edu https://doi,.org/10.7560/318157 ISBN 978-1-4773-1815-7. 614 pp, 667 colour photos, $ 39.95 Paperback [also available as an e-book].


Mushrooms of the Gulf Coast States
A Field Guide to Texas, Louisiana, Mississippi, Alabama, and Florida
ALAN E. BESSETTE
ARLEEN R. BESSETTE
DAVID P. LEWIS

It is always exciting to open a mushroom field guide for a region one does not know. And indeed, the mycoflora of the Gulf Coast states of the USA is quite different from that of California where I live.

This guide provides a description and photo for around 650 species, each species on its own page. The species are organized by group, and alphabetically within each group. The same artificial categories are used as in the earlier field guide for the southeastern USA (Bessette et al. 2007), which works well for a field guide. The alphabetical approach within a group, however, means that species that look alike and/or are closely related do not end up together.

A short introduction to the geographical area, the lifestyle of mushrooms, collecting methods, how to use the book, and pictorial keys to the main groups precede the descriptions and illustrations. The same type of photos as those serving to illustrate the species is used in the keys, but printed very small. Appendices at the back of the book provide information on microscopy and the chemicals used for identification, and there is a chapter devoted to mushrooms for the table. A glossary, a short of list of references and resources, and indices to common and scientific names complete the volume.

As noted, the bulk of the book is dedicated to the illustration and description of the mushroom species. The emphasis is on the more conspicuous species, so that only one *Inocybe* species is included and the two *Psathyrella* species feature only in the picture keys, but don't get their own page. Unfortunately, the introduction does not state how the descriptions were made: are they based on observations of the authors on material from the Gulf Coast states? Or, are they based on the literature?

There is a list of photographers, but there is no information whether the photographed material has been preserved in a herbarium or where the photos were taken. Unfortunately, many photos are too dark.

Some names that are used have not been officially published, such as "*Amanita amerifulva*" for the North American relative of the European *A. fulva*; in other cases, a European name is used, even when it is clear that the American species is different (e.g., *Macrolepiota procera* does not occur in North America, but the North American species have not yet been described). Only in a few cases are such taxonomic issues indicated by adding 'group' or 'complex' to a name; in my opinion this should have been done in many more cases. *Pluteus cervinus* is one such a case where more than one species occurs in the area. Synonyms are given for a number of species, but not for all, so one wonders how that selection was made; why is *Agaricus alboviolaceus* listed, but not *Agaricus conigenoides*? Some identification mistakes are obvious—the photo of *Tremella mesenterica* shows *T. aurantia* with *Stereum*. *Tremella mesenterica* parasitizes *Peniophora* species, and *Dacrymyces chrysospermus* (compared in the remarks to the *Tremella*), growing on conifer wood, is a wood decayer, not a fungal parasite. The photo of *Pluteus atromarginatus* shows a different species, and the text and the photo of *Mycena epipterygia* var. *viscosa* do not match, as the photo shows pruinose stipes, and the text calls the stipe 'smooth'.

One element that I sorely miss is a description of the main types of habitat the species were found in. What do these forests look like? Where are they? When and where to go if one would like to see these mushrooms with one's own eyes? Which species are really rare, and are there conservation plans for them or their habitats?

Also, the volume is probably too heavy to carry around in a backpack.

These problems aside, the book gives a wealth of information on southeastern North American species and will form a basis for much more in-depth work.

Bessette AE, Roody WC, Bessette AR, Dunaway DL. 2007. Mushrooms of the southeastern United States. Syracuse University Press.

Fungi of temperate Europe (volumes 1 & 2). T. Læssøe, J.H. Petersen. 2019. Princeton University Press. https://press.princeton.edu/titles/13983.html $110.00. ISBN 978-0-691-18037-3. 1708p. 7 1/2 x 11 1/2 inches, 7,000 color illus.

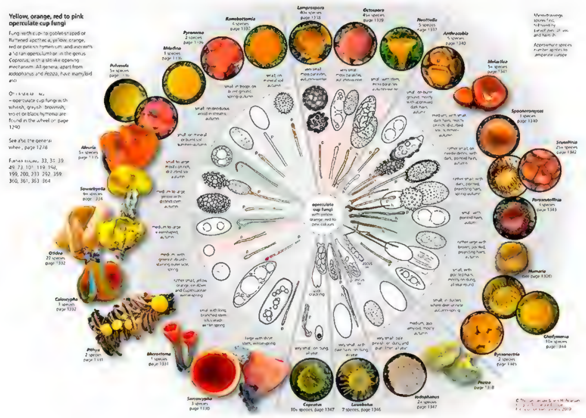
This translation of the Danish Nordeuropas svampe gives descriptions and illustrations of around 2800 species of fungi occurring in northern temperate Europe.

This is not your standard guidebook. The whole book is extremely well thought out, with ease of identification as the most important criterion for layout and presentation. And that alone makes it worth buying.

The two authors are extremely experienced broadly interested field mycologists, educators, excellent photographers, and Jens Petersen has proven his skills in presenting data in the general mycology/coffee table book The Kingdom of Fungi (Petersen 2013). This book builds on that experience and on the digital identification tool Mycokey by the same two authors.

The two volumes (one for the introduction and covering most agarics and boletes, and a second one for crusts, polypores, ascomycetes and other fungi) enthuse, and make you want to look much deeper and in much more detail to find all those beautiful fungi.

Identification tools are not in the form of dichotomous keys but as so-called ‘fungal wheels’—pie charts with the identifying characters as drawings and photos in the outer rings, where one starts in the middle and works one’s way outwards to find the right species or group of species. I’d like to try these



with students and people who don't have any experience with fungi to see how effective these are. These wheels are free for download from the Mycokey website and can be used by everybody, whether you have the books or not: (www.mycokey.com/Downloads/FungiOfTemperateEurope_Wheels.pdf)

The text of the descriptions is in the form of a narrative, which always starts with the name of the species (no extras like author names or synonyms), gives the essential characters, followed by the habitat and distribution, and some remarks on other similar species. Conservation status of species, IUCN red data listings are given as well.

Space is not wasted in this book: the inside of the covers is used for the index and explanation of symbols, and a one-page explanation of often-used terms.

What are some of the other characters that make this book stand out?

—Inclusion of many species of crust fungi, small and inconspicuous ascomycetes, rusts, smuts, slime molds and fungi that do not form macroscopic fruitbodies but are often encountered (e.g. on rotten fruit). Also the astounding numbers of small *Agaricales* that is included is unique: e.g., five species of *Pseudobaeospora*, four *Mycenella* species, and 28 pages of inocybes. Even *Ceratellopsis aculeata* is presented (a tiny, tiny awl-shaped fruitbody on *Cladium mariscus* leaves). A total of 2,800 species! It must be said that this book is not an identification guide for the plant parasites (rusts, smuts etc.) and slime molds, but as they are conspicuous and show up at observation sites such as iNaturalist, their inclusion is definitely warranted.

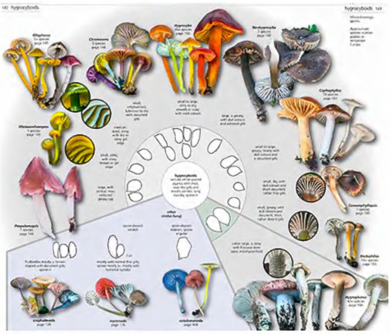
—The attention to detail—the insets with close ups of the important parts of the mushrooms;

—An introduction of almost 40 pages that cover many different aspects of mushrooms, the study of mushrooms, and the scope, geographic coverage, and lay-out of the book. Estimates are given for the species representation per group; e.g., an estimated 50% of gilled mushrooms from the study area is included (for small genera all species are included, but only a fifth of the *Cortinarius* species are represented).

—Group names on the top of the pages so that one knows where one is, without having to move back and forth through the book. An example of such a group: "large, dry ± colourful cortinarias with red-brown to orange-brown gills."

—Scale bars in the photos, no guessing about size anymore, and no need to give sizes in the descriptions.

—Because the species are grouped by shape not all species of a genus will be automatically together; this is obvious for truffle-shaped species and their agaricoid relatives but is also the case for genera with agaricoid and cyphelloid forms.



The only place I did not agree with the identification is for *Leucoagaricus americanus*—the photo shows *L. meleagris.*

An endearing character of these books is the narrow green ribbon that comes in handy to mark the pages with the identification wheels.

This is not a book to put in your backpack on your hike, as it is much too heavy. But it will be used back home, in the lab, with a microscope at hand.

Not only for people in Europe is this the best guidebook to get, it also is extremely useful for people in other parts of the world. It is a splendid example how to present the multitude of forms in a way that makes identification possible and fun, while at the same time showing the beauty and diversity of fungi.

Petersen, J.H., 2013. The kingdom of Fungi. Princeton University Press, Princeton. 265 pp.

OTHER RECENTLY PUBLISHED BOOKS:

Danmarks Svampeatlas 2009–2013. J. Heilmann-Clausen, T. Guldberg Frøslev, T. Læssøe, J.H. Petersen. 2019. Svampetryk, Kornblomsvej 6, 8381 Tilst, Denmark; svampetryk@svampe.dk ISBN 978-87-971178-0-4 350p. 300 DKR